

trastuzumab (11 703 935 €), rituximab (9 153 856 €); in terms of DID: ifosfamid (3,43 (2004) and 6,3 (2009)), gemcitabine (4,88 (2004) and 4,66 (2009)), fluorouracil (3,14 (2004) and 2,85 (2009)). **CONCLUSIONS:** Financial expenditures for antineoplastic agents are rising due to use of new and expensive medications, which are supposed to double within coming years and are expected to decrease one third of cancer mortality. Senescent population with higher incidence of cancer disease is expected to slightly increase DID and medicine packages consumption.

#### PCN74

##### UTILISATION OF DRUGS INVOLVED IN TREATMENT OF STAGE I AND STAGE II BREAST CANCER IN SLOVAK REPUBLIC

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**OBJECTIVES:** Breast cancer forms in tissues of the breast, usually in ducts and lobules. It is the most common type of woman's cancer in Slovakia (age-standardized rate- 48, incidence rate - 2016 new cases every year, mortality rate 773 deaths annually). The aim of this study was to provide comparable and reliable data of utilisation of stage I (invasive, up to 2 centimeters, no lymph nodes involved) and stage II (invasive, 2-5 centimeters, lymph nodes might be involved, over 5 centimeters- no lymph nodes involvement) breast cancer drugs within the period 2004-2009. **METHODS:** Analysed data were abstracted from Slovak Institute for Drug Control, which collects them from wholesalers. Data were studied in accordance with Daily Defined Dose (DDD, with exception of trastuzumab) and in financial units (€). **RESULTS:** The consumption of drugs used in stage I and II breast cancer had increasing trend in terms of financial burdens between 2004 and 2009 with anastrozole (from 1 378 317 € to 1 888 478 €), doxorubicine (from 776 400 € to 1 354 072 €), methotrexate (from 138 954 € to 650 993 €) and trastuzumab (from 359 797 € to 11 703 935 €) decreasing trend with tamoxifen (from 261 417 € to 159 064 €) and alternating trend with cyclofosfamide (206 156 € (2004), 223 867 € (2006), 207 042 € (2009)), epirubicine (238 125 € (2004), 908 690 € (2007), 629 757 € (2009)) and fluorouracil (444 627 € (2004), 455 578 € (2006), 339 232 € (2009)). Highest consumption in terms of DDD showed fluorouracil (3,24 DID (DDD/1000 inhabitants/day) in 2006, 2007, 2008) and highest increase of DDD anastrozole (0,14 DID (2004), 0,46 DID (2009)). **CONCLUSIONS:** Optimal treatment of breast cancer requires different therapies. Trastuzumab is well established on Slovak market due to good results in early stage treatment with few recidives. Consumption of tamoxifen and anastrozole will be influenced by exemestane.

#### PCN75

##### ECONOMIC EVALUATION OF DASATINIB IN CHRONIC MYELOGENOUS LEUKAEMIA PATIENTS RESISTANT TO IMATINIB IN PERU, COMPARED TO NILOTINIB AND HIGH DOSES OF IMATINIB

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**OBJECTIVES:** Within the framework of Chronic Myelogenous Leukemia (CML) treatment in Peru, and based on a previously performed economic evaluation, we compared the costs and cost-effectiveness ratio of using 100mg/day and 140 mg/day doses of Dasatinib with the use of 800 mg/day doses of Nilotinib or an increased dose of Imatinib (800mg/day), for each phase of the disease, in patients who developed resistance to habitual doses of Imatinib. **METHODS:** A Markov model was used for this economic evaluation, which considered a cohort of 10.000 CML patients in its three phases (chronic, accelerated and blast phase), a lifetime horizon and a 3.5 % discount rate for costs and benefits. Model results included the costs of each treatment alternative with Dasatinib, Nilotinib or Imatinib, and Quality Adjusted Life Years (QALYs) gained. Costs were measured in Peruvian SOLES of year 2010. **RESULTS:** In the chronic phase of the disease, dasatinib 100 mg/day yielded the highest amount of QALYs with 6,62 and the lowest cost-effectiveness ratio. In the accelerated phase, Dasatinib 140 mg/day also showed the lowest cost-effectiveness compared to Nilotinib and Imatinib. In the blast phase, dasatinib showed lower cost-effectiveness ratio than imatinib. **CONCLUSIONS:** Dasatinib 100 mg/day showed the lowest cost-effectiveness ratios than doses of 800 mg/day of Nilotinib and imatinib 800 mg for the treatment of patients with CML resistant to usual imatinib doses in the chronic phase, as well as in the accelerated and blast phases. Although there was an overall cost increase, especially due to the cost of Dasatinib in 140 mg/day doses, this fact was explained by the increase in life years gained and, consequently, the use of medical resources and drugs.

#### PCN76

##### SKELETAL-RELATED EVENTS IN PATIENTS WITH BONE METASTASES LEAD TO CONSIDERABLE HEALTH RESOURCE UTILISATION IN EUROPE: ANALYSIS OF A MULTINATIONAL OBSERVATIONAL STUDY

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**OBJECTIVES:** To determine the burden of bone metastases and health resource utilisation (HRU) associated with skeletal-related events (SREs) in patients with advanced cancer. **METHODS:** This observational study assessed HRU associated with SREs (defined as spinal cord compression [SCC], surgery to bone [SB], pathologic fracture [PF] or radiation to bone [RB]). Patients with breast, lung or prostate cancer metastatic to bone or multiple myeloma and life expectancy >6 months were enrolled in centres in Germany, Italy, Spain, UK, Canada and USA after experiencing a SRE. We report here the European HRU data on hospitalisation, which were collected retrospectively for the 90 days prior to enrolment and prospectively

for approximately 18-21 months. **RESULTS:** 631 eligible patients with a total of 1282 SREs were enrolled across 95 European sites: 223 (35.3%) had a primary diagnosis of breast cancer, 135 (21.4%) lung cancer, 120 (19%) prostate cancer and 153 (24.3%) multiple myeloma. Across all tumour types, for Germany, Italy, Spain and UK, respectively, the mean number of hospitalisations per SCC (n = 91) was 0.85, 0.69, 0.53 and 1.06 with a mean length of stay (per SRE with ≥ 1 hospitalisation) of 25.6, 41.1, 34.3 and 27.7 days. For SB (n = 137) mean number of hospitalisations per SRE was 0.90, 0.76, 0.83 and 0.75 with mean stays of 19.4, 19.8, 8.4 and 10.0 days, respectively. For PF (n = 254), mean number of hospitalisations per SRE was 0.42, 0.49, 0.49 and 0.39 with mean stays of 18.7, 22.4, 20.2 and 20.7 days, respectively. Mean number of hospitalisations per RB (n = 692) were 0.19, 0.15, 0.16 and 0.07 with mean stays of 17.9, 16.6, 21.9 and 10.4 days respectively. **CONCLUSIONS:** Each SRE leads to considerable hospitalisation, which varies by SRE type and country.

#### PCN77

##### USE OF SUBSTANCE ABUSE AMONG RESIDENTS OF KARACHI: REASONS AND COST OF USING SUBSTANCES

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**OBJECTIVES:** Use of substances (pan, chaalia, ghutka, niswar) is associated with serious health risks. In Pakistan most people use substances from early years of life which keeps them on risk of short life span. It is important to understand the cost implication and provide knowledge about the effects of these substances. The aim of this study was to estimate the costs of using these substances and to understand the reasons for using substances. **METHODS:** This was a cross-sectional study conducted in two residential colonies in Karachi, Pakistan during 2008 and 2009. Pre-coded structured questionnaire was administered to collect the data on socio demographics, costs, reasons for use of substances and use of substances per day. The data was analyzed on SPSS version 18.0. Possible measures were taken to ensure the confidentiality of all participants. **RESULTS:** From 124 randomly selected residents, 107 (86%) agreed to respond. All the selected participants were between the ages 10-71 years (mean±sd age 36.2±16.4). Of the total, about one-fifth of the users were females. Daily use of substances was significantly higher among males (p<0.001). Further, the use was higher among adolescents than adults (p<0.001) and interestingly less educated consumed less than high educated (P=0.06). Males are spending significantly higher on substances; Rs. 37±11.5/day [Rs.930 or (US\$13)/month] compared to females. Overall, 41% of the cost is spent on cigarettes followed by 27% and 23% on local and branded ghutka respectively. The main reasons for using substances were peer pressure, easy availability of substances, stress, liking of taste and to treat toothache. **CONCLUSIONS:** This study concluded that use of substances is higher among young males and they are spending a lot on them. To prevent this population, regular awareness campaigns may be held at community and school level so that, continuous re-enforcement make them to quit from using any kind of substances.

#### PCN78

##### THE DEVELOPMENT OF A VALUE BASED PRICING INDEX FOR NEW DRUGS IN METASTATIC COLORECTAL CANCER

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**OBJECTIVES:** Worldwide, prices for cancer drugs have been under downward pressure where several governments have mandated price cuts of branded products. A better alternative to mandated price cuts would be the estimation of a launch price based on drug performance, cost effectiveness and a county's ability to pay. We developed a global pricing index for new drugs that encompasses all of these attributes in patients with metastatic colorectal cancer (mCRC). **METHODS:** A pharmacoeconomic model was developed to simulate clinical outcomes in mCRC patients receiving chemotherapy with the addition of a "new drug" that improves survival by 1.4, 3 and 6 months. Cost and health state utility data were obtained from cancer centers and oncology nurses (n=112) in Canada, Spain, India, South Africa and Malaysia. A price per dose was estimated for each survival increment using a target value threshold of three times the per capita GDP for each country, as recommended by the World Health Organization (WHO). Multivariable analysis was then used to develop the pricing index, which considers survival benefit, per capita GDP and income dispersion as measured by the Gini coefficient as predictor variables. **RESULTS:** Higher survival benefits were associated with elevated drug prices, especially in wealthier countries such as Canada. For Argentina with a per capita GDP of \$15,000 and a Gini coefficient of 51, the pricing index estimated that for a drug which provides a 4 month survival benefit in mCRC, the value based price would be \$U.S.630 per dose. In contrast, the same drug in a wealthier country like Norway could command a price of \$U.S.2,775. **CONCLUSIONS:** The application of this index to estimate a price based on cost effectiveness would be a good starting point for opening dialogue between the key stakeholders and a better alternative to governments' mandated price cuts.

#### Cancer – Patient-Reported Outcomes & Preference-Based Studies

#### PCN79

##### IMPACT OF NON-ADHERENCE TO IMATINIB ON PROGRESSION-FREE SURVIVAL AS 1ST TREATMENT FOR CHRONIC MYELOID LEUKEMIA IN BRAZIL: TWO YEARS FOLLOW UP

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